

Comparisons of Job Characteristics

Focus Occupation: [Air Traffic Controllers \(53-2021\)](#)

Associated Occupation: [Airline Pilots, Copilots, and Flight Engineers \(53-2011\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

| | |
|----|--|
| << | Focus occupation element is much lower |
| < | Focus occupation element is lower |
| 0 | Focus occupation element is at a similar level |
| > | Focus occupation element is at a higher level |
| >> | Focus occupation element is at a much higher level |

Knowledge

Similarity of Focus Occupation to Associated Occupation: 88

Focus Occupation: Air Traffic Controllers (53-2021)

Associated Occupation: Airline Pilots, Copilots, and Flight Engineers (53-2011)

| Associated Occupation's Key Knowledge Elements | Average Rating, All Occupations | Associated Occupation's Rating | Focus Occupation's Rating | Evaluation of Focus Occupation | |
|--|---------------------------------|--------------------------------|---------------------------|--------------------------------|---|
| Transportation | 4.6 | 23.1 | 20.1 | < | Expanded education and/or training may be required |
| Public Safety and Security | 6.9 | 15.8 | 11.1 | << | Extensive education and/or training may be required |
| Geography | 3.9 | 15.7 | 11.0 | << | Extensive education and/or training may be required |
| Physics | 4.3 | 12.3 | 6.8 | << | Extensive education and/or training may be required |
| Psychology | 6.4 | 12.2 | 7.2 | << | Extensive education and/or training may be required |
| Mathematics | 9.2 | 11.2 | 7.3 | << | Extensive education and/or training may be required |
| Law and Government | 5.9 | 10.7 | 8.2 | << | Extensive education and/or training may be required |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 51

Focus Occupation: Air Traffic Controllers (53-2021)

Associated Occupation: Airline Pilots, Copilots, and Flight Engineers (53-2011)

| Associated Occupation's Key Skills Elements | Average Rating, All Occupations | Associated Occupation's Rating | Focus Occupation's Rating | Evaluation of Focus Occupation | |
|---|---------------------------------|--------------------------------|---------------------------|--------------------------------|--|
| Operation and Control | 5.4 | 23.0 | 5.3 | << | Extensive development of skills in this area may be required |
| Operation Monitoring | 6.6 | 18.7 | 10.8 | << | Extensive development of skills in this area may be required |

| | | | | | |
|------------------------------|------|------|------|----|--|
| Judgment and Decision Making | 9.4 | 15.2 | 15.6 | 0 | Current skill level may be sufficient |
| Critical Thinking | 10.8 | 15.0 | 14.3 | 0 | Current skill level may be sufficient |
| Complex Problem Solving | 9.1 | 13.3 | 15.7 | > | Skill level is likely sufficient |
| Coordination | 9.1 | 12.3 | 12.6 | 0 | Current skill level may be sufficient |
| Time Management | 8.9 | 11.8 | 10.8 | 0 | Current skill level may be sufficient |
| Mathematics | 6.2 | 10.7 | 8.1 | << | Extensive development of skills in this area may be required |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

| Abilities | | Similarity of Focus Occupation to Associated Occupation: 57 | | | |
|--|---------------------------------|---|---------------------------|--------------------------------|--|
| Focus Occupation: Air Traffic Controllers (53-2021) Associated Occupation: Airline Pilots, Copilots, and Flight Engineers (53-2011) | | | | | |
| Associated Occupation's Key Abilities Elements | Average Rating, All Occupations | Associated Occupation's Rating | Focus Occupation's Rating | Evaluation of Focus Occupation | |
| Response Orientation | 4.0 | 20.6 | 2.7 | << | Extensive improvement in abilities may be required |
| Far Vision | 7.8 | 18.3 | 14.5 | << | Extensive improvement in abilities may be required |
| Spatial Orientation | 2.7 | 16.9 | 1.8 | << | Extensive improvement in abilities may be required |
| Rate Control | 3.8 | 16.1 | 2.0 | << | Extensive improvement in abilities may be required |
| Depth Perception | 5.3 | 15.9 | 7.4 | << | Extensive improvement in abilities may be required |
| Reaction Time | 4.8 | 15.7 | 2.4 | << | Extensive improvement in abilities may be required |
| Selective Attention | 8.7 | 15.0 | 16.2 | 0 | Current ability level may be sufficient |
| Time Sharing | 6.6 | 13.8 | 17.8 | >> | Current ability level is likely more than sufficient |
| Night Vision | 2.1 | 11.5 | 4.8 | << | Extensive improvement in abilities may be required |
| Peripheral Vision | 2.2 | 11.4 | 1.8 | << | Extensive improvement in abilities may be required |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

| Activities that Both Occupations Have in Common | | Similarity of Focus Occupation to Associated Occupation: 85 | |
|--|--|---|--|
| Focus Occupation: Air Traffic Controllers (53-2021) Associated Occupation: Airline Pilots, Copilots, and Flight Engineers (53-2011) | | | |
| Work Activities | | Exclusivity of Activity | |
| Make decisions | | 24 | |

| | |
|--|----|
| Perform safety inspections in transportation setting | 62 |
| Read maps | 42 |
| Read navigation charts | 85 |
| Sustain attention in air traffic emergencies | 92 |
| Understand English for aviation communications | 89 |
| Understand technical operating, service or repair manuals | 6 |
| Use aircraft safety regulations | 85 |
| Use local or regional geographical knowledge to transportation | 70 |
| Use two-way radio or mobile phone | 42 |

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 88

Focus Occupation: Air Traffic Controllers (53-2021)

Associated Occupation: Airline Pilots, Copilots, and Flight Engineers (53-2011)

| Tools and Technologies | Exclusivity |
|--|-------------|
| Aerospace location and navigation systems and components | 70 |
| Computers | 1 |
| Flight communications related systems | 70 |
| Industry specific software | 1 |

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.